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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,870	02/22/2002	William E. Bardwell	59718	9894

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EXAMINER	
PERUNGAVOOR, SATHYANARAYA V	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/081,870	BARDWELL, WILLIAM E.	
	Examiner	Art Unit	
	Sath V. Perungavoor	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-11,13-17,19-23,25-30 and 32-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-11,13-17,19-23,25-30 and 32-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

[1] A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 5, 2006 has been entered.

Response to Arguments/Amendments

[2] Presented arguments have been fully considered, but are rendered moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[3] Claims 1, 6, 8-11, 13, 15, 19, 21, 25, 26, 29, 32 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Abtahi et al. ("Abtahi") [US 5,509,083].

Regarding claim 1, Abtahi meets the claim limitations, as follows:

> A method for storing biometric information on a token comprising a magnetic storage medium *[Title]*, the method comprising: capturing a biometric image *[col. 6,*

lines 6-12] and generating therefrom digital pixel data for an array of image pixels *[col. 6, lines 40-44]*; selecting a plurality of non-contiguous sets of image pixels from the array of image pixels *[110 and 118 on fig. 2; fig. 11]*, each non-contiguous set of image pixels comprises a plurality of consecutive and colinear image pixels *[col. 8, lines 22-24]*; processing respective sets of digital pixel data for the selected spaced apart sets of image pixels to produce biometric data *[112 on fig. 2]*; and storing the biometric data on the magnetic storage medium of the token *[120 on fig. 2; col. 7, lines 45-65]*.

Regarding claim 6, Abtahi meets all the claim limitations, as follows:

The method according to claim 1, wherein the biometric information is based upon a fingerprint *[Column 5 Lines 55-57]*; and wherein capturing the biometric image comprises capturing the biometric image using a fingerprint sensor *[Figure 5]*.

Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

Regarding claim 8, Abtahi meets all the claim limitations, as follows:

The method according to claim 1, wherein the token comprises a generally rectangular substrate *[Figure 7]*.

Regarding claim 9, Abtahi meets all the claim limitations, as follows:

> The method according to claim 1, wherein the token comprises at least one of an access card, credit card, debit card, frequent flyer card, driver's license card, identification card and smart card *[Column 13 Lines 11-13]*.

Regarding claim 10, Abtahi meets all the claim limitations, as follows:

> A method of regulating the use of a token, the token comprising a magnetic storage medium having biometric data of an authorized token user stored thereon, the biometric data comprising selected non-contiguous sets of image pixels from an array of image pixels of an enrollment biometric image *[110 and 118 on Figure 2; Figure 11: feature templates]*, each non-contiguous set of image pixels comprises a series of consecutive and colinear image pixels *[Column 6 Lines 40-44; Column 8, Lines 22-24]*, the method comprising *[Figure 1]*: capturing a verification biometric image *[Column 6 Lines 6-10]* and generating digital pixel data for an array of image pixels from the verification biometric image *[Column 6 Lines 40-44]*; decoding the biometric data stored on the magnetic storage medium of the token *[Column 7 Lines 32-44]*; and comparing the non-contiguous spaced apart sets of image pixels from the decoded biometric data with the digital pixel data for the array of image pixels from the verification biometric image to determine if the token holder is the authorized token user *[Column 8 Lines 38-67]*.

Regarding claim 11, Abtahi meets all the claim limitations, as follows:

The method according to claim 10, wherein capturing the verification biometric image comprises using a biometric sensor having a sensing area *[Figure 5]*; and wherein comparing the non-contiguous sets of image pixels comprises a bit by bit comparison of one of the non-contiguous sets of image pixels from the magnetic storage medium with the array of image pixels from the verification biometric image beginning at a first scanline and continuing to a last scanline until a match is found *[Column 8 Lines 34-44]*. Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

Regarding claim 13, Abtahi meets all the claim limitations, as follows:

The method according to claim 10, wherein the biometric information is based upon a fingerprint *[Column 5 Lines 55-57]*; and wherein capturing the biometric image comprises capturing the biometric image using a fingerprint sensor *[Figure 5]*. Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

Regarding claim 15, Abtahi meets all the claim limitations, as follows:

A method of regulating the use of a token, the token comprising at least one of an access card, credit card, debit card, identification card and smart card, and including at least a magnetic storage medium thereon *[Figure 1; Column 13 Lines 11-13]*, the method comprising: enrolling an authorized token user *[Figure 2]* by capturing a first biometric image and generating therefrom first digital pixel data for a first array of image pixels *[132 and 48 on Figure 2]*, selecting a first plurality of non-contiguous sets of image pixels from the first array of image pixels *[110 and 118 on Figure 2; Figure 11: feature templates]*, each non-contiguous set of image pixels comprising a plurality of consecutive and colinear image pixels *[Column 6, Lines 40-44]*, processing respective sets of digital pixel data for the first plurality of selected non-contiguous sets of image pixels to produce enrollment biometric data *[112 of Figure 2]*, and storing the enrollment biometric data on the magnetic storage medium of the token *[120 on Figure 2; Column 7 Lines 45-65]*; and verifying an identity of a token holder presenting the token *[Figure 1]* by capturing a second biometric image and generating therefrom second digital pixel data for a second array of image pixels *[48 and 78 on Figure 1]*, and comparing the second digital pixel data with the first plurality of selected non-contiguous sets of image pixels of the enrollment biometric data stored on the magnetic storage medium of the token to determine if the token holder is the authorized token user *[104 and 92 on Figure 1]*.

Regarding claims 19, 25 and 32 all claimed limitations are set forth and rejected as per discussion for claim 13.

Regarding claim 21 and 29 all claimed limitations are set forth and rejected as per discussion for claim 15.

Regarding claim 26, Abtahi meets all the claim limitations, as follows:

> The system according to claim 25, wherein the biometric sensor device further comprises a finger slide adjacent the fingerprint sensor *[38 on Figure 5]*.

Regarding claim 33, all claimed limitations are set forth and rejected as per discussion for claim 26.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

[4] Claims 2, 3, 16, 22 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abtahi in view of Borza [US 6,333,989].

Regarding claim 2, Abtahi discloses the following claim limitations:

The method according to claim 1, wherein capturing the biometric image comprises using a biometric sensor having a sensing area *[col. 6, lines 6-12]*.

Abtahi does not explicitly disclose the following claim limitations:

Wherein selecting the plurality of non-contiguous sets of image pixels comprises selecting a reference set of image pixels based upon a predetermined location on the sensing area, and selecting at least one other set of image pixels a predetermined distance from the predetermined location.

However, in the same field of endeavor Borza discloses the deficient claim limitations, as follows:

Wherein selecting the plurality of non-contiguous sets of image pixels comprises selecting a reference set of image pixels *(i.e. 100)* based upon a predetermined location on the sensing area, and selecting at least one other set of image pixels a predetermined distance *(i.e. d)* from the predetermined location *(i.e. 101) [fig. 3a]*.

Abtahi and Borza are combinable because they are from the same field of fingerprint imaging.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Abtahi with Borza to obtain two sets images seperated by a predetermined distance, the motivation being to reduce the size of the imager *[col. 2, lines 50-60]*. Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

Regarding claim 3, Abtahi meets the claim limitations, as follows:

> The method according to claim 2, wherein the location of the reference set of image pixels is also stored on the magnetic storage medium *[Column 7 Lines 39-53]*.

Regarding claims 16, 22 and 30, all claimed limitations are set forth and rejected as per discussion for claim 2.

[5] Claims 4, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abtahi in view of Gagne.

Regarding claim 4, Abtahi meets the claim limitations as set forth in claim 1.

Abtahi does not explicitly disclose the following claim limitations:

> The method according to claim 1, wherein capturing the biometric images comprises capturing multiple biometric images until a preferred biometric image is captured based upon an image quality threshold.

However, in the same field of endeavor Gagne discloses the deficient claim limitations, as follows:

> The method according to claim 1, wherein capturing the biometric image comprises capturing multiple biometric images until a preferred biometric image is captured based upon an image quality threshold *[Column 9 Lines 5-22]*.

Abtahi and Gagne are combinable because they are from the same field of fingerprint verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Abtahi with Gagne to include a quality threshold, the motivation being to obtain accurate verification from good quality images *[Gagne: Column 9 Lines 5-22]*.

Regarding claims 17 and 23, all claimed limitations are set forth and rejected as per discussion for claim 4.

[6] Claims 7, 14, 20, 28 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abtahi in view of Lu.

Regarding claim 7, Abtahi meets the claim limitations as set forth in claim 1.

Abtahi does not explicitly disclose the following claim limitations:

> The method according to claim 1, wherein the token comprises a card corresponding to the ISO/IEC 7810 standard and the magnetic storage medium comprises a magnetic stripe having three tracks in accordance with the ISO/IEC 7811 standard; and wherein storing the biometric data comprises storing the biometric data on the third track.

However, in the same field of endeavor Lu discloses the deficient claim limitations, as follows:

> The method according to claim 1, wherein the token comprises a card corresponding to the ISO/IEC 7810 standard *[30 on Figure 3]* and the magnetic storage medium comprises a magnetic stripe having three tracks in accordance with the ISO/IEC

7811 standard *[Column 3, line 60-Column 4, line 3]*; and wherein storing the biometric data comprises storing the biometric data on the third track *[Column 8 Lines 56-60]*.

Abtahi and Lu are combinable because they are from the same field of biometric verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Abtahi with Lu to store the biometric data in the third track, the motivation being tracks 1 and 2 are being used to store name and PIN *[Lu: Column 4 Lines 16-26]*. Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

Regarding claim 14, Abtahi meets the claim limitations as set forth in claim 10.

Abtahi does not explicitly disclose the following claim limitations:

The method according to claim 10, wherein the magnetic storage medium comprises a magnetic stripe having three tracks in accordance with the ISO/IEC 7810 and 7811 standards; and wherein the biometric data is stored on the third track.

However, in the same field of endeavor Lu discloses the deficient claim limitations, as follows:

The method according to claim 10, wherein the magnetic storage medium comprises a magnetic stripe having three tracks in accordance with the ISO/IEC 7810 and

7811 standards *[Column 3 Line 60-Column 4 Line 3]*; and wherein the biometric data is stored on the third track *[Column 8 Lines 56-60]*.

Abtahi and Lu are combinable because they are from the same field of biometric verification.

It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Abtahi with Lu to store the biometric data in the third track, the motivation being tracks 1 and 2 are being used to store name and PIN *[Lu: Column 4 Lines 16-26]*. Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

Regarding claims 20, 28 and 35, all claimed limitations are set forth and rejected as per discussion for claim 14. Note: Examiner notices that the claim includes "wherein" language. Examiner requests the applicants to clarify the scope of the claim to which patentable weight is to be assigned, since the presence "wherein" language is sometimes considered optional and non-limiting in terms of claim scope. See MPEP 2111.04. However, Examiner has given patentable weight to all limitations in forming the rejections, irrespective of "wherein" language.

[7] Claims 27 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abtahi in view of Sibbald et al. ("Sibbald") [US 5,412,463].

Regarding claim 27, Abtahi meets the claim limitations as set forth in claim 26 and further discloses the following claim limitations:

> The system according to claim 26, wherein the finger slide further comprises finger guides *[38 on Figure 5]*.

Abtahi does not explicitly disclose the following claim limitations:

> The system according to claim 26, wherein the finger slide further comprises finger guides and a finger stop.

However, in the same field of endeavor Sibbald discloses the deficient claim limitations, as follows:

> The system according to claim 26, wherein the finger slide further comprises finger guides *[6,8, 14 and 16 on Figure 1]* and a finger stop *[10 on Figure 1]*.

Abtahi and Sibbald are combinable because they are from the same field of fingerprinting. It would have been obvious to one with ordinary skill in the art at the time of invention to modify the teachings of Abtahi with Sibbald to incorporate finger guides and stop, the motivation being to obtain proper alignment *[Column 1, Lines 36-41]*.

Regarding claim 34, all claimed limitations are set forth and rejected as per discussion for claim 27.

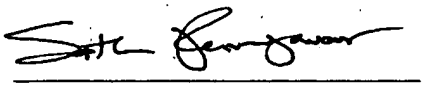
Contact Information

[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Sath V. Perungavoor whose telephone number is (571) 272-7455. The examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Bhavesh M. Mehta whose telephone number is (571) 272-7453, can be reached on Monday to Friday from 9:00am to 5:00pm. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dated: November 9, 2006

By: 

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